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November 9, 2000

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1914 - 1999

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A MEMBER OF THE DC BAR

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Magalie R. Salas, Secretary  
Office of the Secretary  
Federal Communications Commission  
Washington, D.C. 20554

**Attention: Patrick Forster, Senior Engineer (3-A104)**  
**Policy Division**  
**Wireless Telecommunications Bureau**

**Re: Conestoga Wireless Company**  
**Implementation Plans of Wireless E911 Phase II Automatic**  
**Location Identification**  
**Notice Pertaining to CC Docket No. 94-102**

Dear Ms. Salas:

On behalf of Conestoga Wireless Company, we are submitting herewith its Report on Implementation of Wireless E911 Phase II Automatic Location Identification.

Please direct any questions or correspondence regarding this filing to our office.

Very truly yours,

  
John A. Prendergast  
D. Cary Mitchell

Attachment

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**CONESTOGA WIRELESS COMPANY**  
**215 West Philadelphia Ave**  
**Boyertown, PA 19512**

Magalie R. Salas, Secretary  
Office of the Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, D.C. 20554

**Attention: Patrick Forster, Senior Engineer (3-A104)**  
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**Re: Implementation Plans of Wireless E911 Phase II Automatic**  
**Location Identification**  
**Notice Pertaining to CC Docket No. 94-102**

**E911 PHASE II STATUS REPORT**

Dear Ms. Salas:

In accordance with the *Third Report and Order* in Docket No. 94-102 and the Commission's related Public Notice, Mimeo No. DA00-2099 (*released* September 14, 2000), we hereby submit our report on the status of implementation plans for Wireless E911 Phase II Automatic Location Information, as follows:

***a. Background/Contact Information***

- 1) Carrier Identifying Information: Conestoga Wireless Company  
TRS Number: **802582**
  
- 2) Contact Information: John A. Prendergast, Esq.  
D. Cary Mitchell, Esq.  
Blooston, Mordkofsky, Jackson & Dickens  
2120 L Street, N.W., Suite 300  
Washington, D.C. 20037  
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***b. E911 Phase II Location Technology Information***

Conestoga Wireless Company ("Conestoga") controls the following broadband PCS licenses:

BTA Market	Frequency Block	Call Sign	Market Name
BTA360	C	WPOJ725	Pottsville, PA
BTA360	D	KNLF905	Pottsville, PA
BTA370	C2	WPOJ726	Reading, PA
BTA370	D	KNLG701	Reading, PA
BTA429	C	WPOJ727	State College, PA
BTA437	C	WPOJ728	Sunbury-Shamokin, PA
BTA437	D	KNLG945	Sunbury-Shamokin, PA
BTA475	C	WPOJ729	Williamsport, PA
BTA475	D	KNLG703	Williamsport, PA

Conestoga has launched service using GSM as its air-interface standard, and uses Nortel equipment throughout its wireless network. Conestoga is therefore largely dependent upon Nortel for the testing and/or approval of Phase II ALI solutions to be used in its network. Conestoga has consulted with Nortel representatives and understands what software and network elements it will need to implement in order to provide Phase II service.

As shown in the PSAP E9-1-1 Status Summary Sheet attached below (*see Attachment A*), Conestoga has received requests for Phase I service from two PSAPs, and we are providing Phase I service in these areas. Conestoga has not received any requests for Phase II service, and such requests do not appear to be imminent.

Conestoga takes its obligation to provide enhanced 911 services seriously and is committed to working with its equipment vendor and the public safety community to make Phase II ALI capability available to its customers as soon as practicable.

#### **1. Type of Technology:**

As a provider of GSM service and a member of the North American GSM Alliance, LLC, we have been following the development and testing of location technologies that are compatible with the GSM air-interface standard. In this regard, Conestoga is evaluating a hybrid ALI approach that involves both network and handset upgrades. This hybrid approach was the subject of a request for waiver that was filed by another GSM carrier, VoiceStream Wireless ("VoiceStream"), which was addressed by the Commission in its *Fourth Memorandum Opinion and Order* in the E-911 Docket (CC Docket No. 94-102). The Commission granted VoiceStream's request for waiver on the basis that VoiceStream's proposed system may be the only solution available for GSM air interface in the near future. Conestoga has been monitoring the progress of the various Phase II E911 technologies under development for the GSM air-interface, and concurs with the Commission's conclusion from the *Fourth Memorandum Opinion and Order*. Therefore, Conestoga currently believes that it will deploy the same hybrid ALI approach described by VoiceStream in its waiver request and subsequent *ex parte* filings. Once Conestoga has received further pricing information and assurances from relevant vendors that the necessary software and hardware upgrades will be available on a timely schedule, we will submit to the FCC an appropriate waiver request for authority to implement a two-stage hybrid ALI solution.

Conestoga is exploring with its equipment vendors the cost and availability of the Network Safety Solution (NSS) (to provide baseline location information for all wireless 9-1-1 calls) for its regional GSM network, as well as the availability of Enhanced Observed Time Difference of Arrival (E-OTD)-capable handsets for the provision of more accurate location data. Conestoga has not selected a particular vendor for these technologies. Out of an abundance of caution, we request a waiver of the November 9, 2000 report deadline, to the extent that it can be interpreted as requiring a choice of a particular vendor by that date. As discussed below, no PSAP in our service area is close to being able to use Phase II information.

## 2. Testing and Verification

Testing to verify the Phase II capability will be conducted in accordance with the Empirical Testing Method per OET Bulletin No. 71 and the equipment manufacturer's requirements.

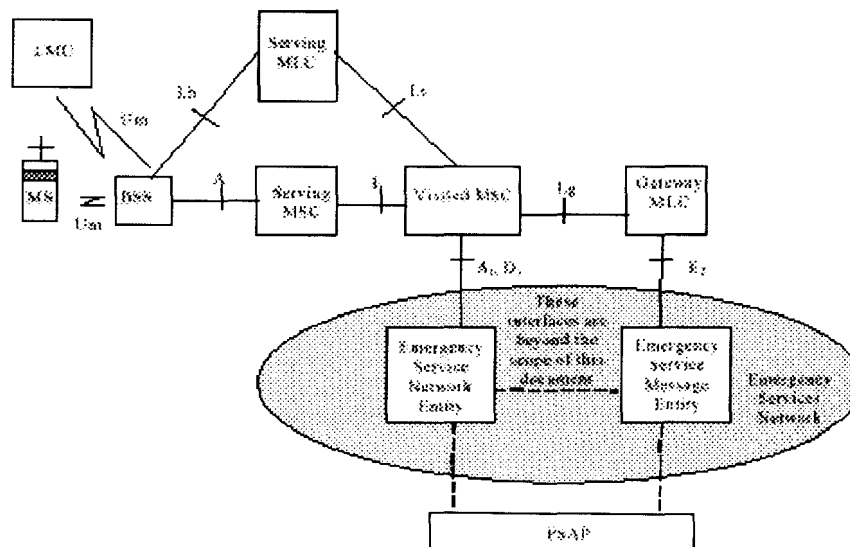
## 3. Implementation Details and Schedule

Assuming equipment and software vendors can deliver and install the necessary upgrades in a timely fashion, and the availability of E-OTD-capable handsets to Conestoga, we believe that we will be able to implement a hybrid ALI solution on the same timetable described by VoiceStream in its waiver request and *ex parte* filings, and approved by the Commission in the *Fourth Memorandum Opinion and Order*.

## 4. PSAP Interface

As shown on the attached spreadsheet, we have received two PSAP requests for Phase I service and no PSAP requests for Phase II service.

The figure below depicts the specific network architecture that is necessary to support either network based and handset based location technologies in a DMS-MSC (GSM) network.



SMLC – Service Mobile Location Center manages the overall coordination and scheduling of resources required to determine a mobile's position. For some position methods, it also

calculates the final position estimate and accuracy.

GMLC - Gateway Mobile Location Center (GMLC) contains functionality required to support delivery of a mobile's position to the ESME.

**5. Existing Handsets**

Once the Phase II capability is implemented, it is contemplated that we will use customer mailings, bill inserts, store promotions and similar efforts to make our customers and potential customers aware of the availability and benefits of Phase II capability, and to encourage the upgrading of existing handsets.

**6. Location of Non-Compatible Handsets**

As described above, customer mailings and promotions will be used in an attempt to encourage the upgrading of non-compliant handsets. Several months in advance of the December 31, 2005 deadline for ensuring that 95 percent of all handsets are Phase II compliant (as prescribed by the Commission's Fourth Memorandum Opinion and Order, CC Docket No. 94-102, FCC 00-326, released September 8, 2000), we will advise all customers that we will no longer support the maintenance and repair of handsets that are not Phase II capable, and we will offer incentives to identify and replace the few remaining phones that are non-compliant.

**7. Other Information**

In order to ensure that we timely achieve compliance with the Commission's E911 requirements, we will consult with industry sources, especially other rural telephone companies engaging in the provision of broadband PCS services, to determine which solution works best for rural areas. We will then decide on a vendor and proceed to implement the chosen solution in accordance with the Commission's Rules. It is contemplated that we will use customer mailings, bill inserts, store promotions and similar efforts to make our customers and potential customers aware of the availability and benefits of Phase II capability.

Upon the receipt of a PSAP request, we stand ready to implement Phase II E911 service in accordance with the Commission's Rules. We will remain in contact with our local PSAPs, and as necessary will update this report to keep the Commission apprised of our progress.

Respectfully submitted,

**CONESTOGA WIRELESS COMPANY**

By WD Chamberlain

Dated: November 9, 2000

**Attachment A**

**Wireless E911 – PSAP Deployment Status  
Conestoga Wireless Company**

### Conestoga Wireless Company - PSAP E9-1-1 Status Summary

Name of PSAP	Counties Routing to this PSAP	Exchanges		9-1-1 Implemented	Current E-911 Status	Phase I	Phase II
		Routing to this PSAP				Service Requested	Service Requested
BERKS	BERKS	610-468;484-333	Yes	Direct Trunk,Tower Pseudo #, ANI	YES	NO	
CENTRE	CENTRE	814-222	Yes	POTS Telephone Number	NO	NO	
CLINTON	CLINTON	570-716;570-777	Yes	POTS Telephone Number	NO	NO	
LYCOMING	LYCOMING	570-716;570-777	Yes	POTS Telephone Number	NO	NO	
MONTOUR	MONTOUR	570-716;570-444	Yes	POTS Telephone Number	NO	NO	
NORTHUMBERLAND	NORTHUMBERLAND	570-716;570-444	Yes	POTS Telephone Number	NO	NO	
SCHUYLKILL	SCHUYLKILL	570-716;570-292	Yes	POTS Telephone Number	NO	NO	
SNYDER	SNYDER	570-716;570-444	Yes	POTS Telephone Number	NO	NO	
SULLIVAN	SULLIVAN	570-716;570-777	Yes	POTS Telephone Number	NO	NO	
UNION	UNION/NORTHUMBERLAND	570-716;570-444	Yes	Direct Trunk,Tower Pseudo #, ANI	YES	NO	